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09/772,126	01/29/2001	Edward Peter Imes	D/A0759 690-009618-US(PAR)	5123
7590	04/19/2005			EXAMINER THOMPSON, JAMES A
Geza C. Ziegler Perman & Green, LLP 425 Post Road Fairfield, CT 06430			ART UNIT 2624	PAPER NUMBER

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	09/772,126	IMES, EDWARD PETER
	Examiner	Art Unit
	James A Thompson	2624

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 29 November 2004.
- 2a) This action is **FINAL**. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) _____ is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-20 is/are rejected.
- 7) Claim(s) 18-20 is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 29 November 2004 is/are: a) accepted or b) objected to by the Examiner. Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a). Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)-
3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____	6) <input type="checkbox"/> Other: _____

DETAILED ACTION

Response to Arguments

1. Applicant's arguments, see page 8, lines 6-9, filed 29 November 2004, with respect to the drawings have been fully considered and are persuasive. The objections to the drawings listed in item 1 of the first office action, dated 20 August 2005, have been withdrawn.
2. Examiner has noted that the amendment to claim 15 overcomes the rejection under 35 U.S.C. §112, 2nd paragraph, listed in item 2 of said first office action. Therefore, the rejection under 35 U.S.C. §112, 2nd paragraph listed in item 2 of said first office action is hereby withdrawn. The amendment to claim 15 and the withdrawal of the rejection under 35 U.S.C. §112, 2nd paragraph further renders the claim interpretation listed in item 3 of said first office action moot.
3. Applicant's arguments, filed 29 November 2004, with regard to the rejections of the claims under 35 USC §102(b) and 35 USC §103(a) have been fully considered but they are not persuasive.

Examiner agrees with Applicant that Bloomberg (US Patent 5,202,933) does not teach a user selection of text only or graphics only output. However, this feature is a limitation of the amended claims, and not the claims as previously filed. New grounds of rejection necessitated by the present amendments to the claims have been found in the prior art and are discussed in detail below.

Art Unit: 2624

Claim Objections

4. The numbering of claims is not in accordance with 37 CFR 1.126 which requires the original numbering of the claims to be preserved throughout the prosecution. When claims are canceled, the remaining claims must not be renumbered. When new claims are presented, they must be numbered consecutively beginning with the number next following the highest numbered claims previously presented (whether entered or not).

Misnumbered claims 18, 18 and 19 been renumbered 18, 19 and 20 in accordance with the order in which they are recited.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claims 1-2, 4-8, 10-12 and 14-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bloomberg (US Patent 5,202,933) in view of Narendranath (US Patent 5,751,434).

Regarding claim 1: Bloomberg discloses a document reproduction system (figure 1A of Bloomberg) comprising an electronic reprographic apparatus (figure 1A(8) and column 6, lines 1-5 of Bloomberg); and a controller (figure 1A(6) of Bloomberg), the controller including an image manipulation device (figure 1A(6(part)) of Bloomberg) adapted to screen out unwanted images (column 5, lines 17-21 of Bloomberg) from a

Art Unit: 2624

document being reproduced (column 5, lines 35-37 of Bloomberg). The computer processor (figure 1A(6) of Bloomberg) performs the overall image processing of the system (column 5, lines 57-62 of Bloomberg). Therefore, the image manipulation device corresponds to the portion of the computer processor, along with the associated embodied software, that performs the operations corresponding to said image manipulation device.

Bloomberg does not disclose expressly an output selection device that allows a user to select at least a detection and printing of only text from a text/graphic document.

Narendranath discloses an output selection device (figure 3; figure 6(14); and column 3, lines 6-7 of Narendranath) that allows a user to select at least a detection and printing of only text from a text/graphic document (column 7, line 64 to column 8, line 2 and column 8, lines 8-12 of Narendranath).

Bloomberg and Narendranath are combinable because they are from the same field of endeavor, namely the control, processing and printing of digital documents. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to include the output selection device taught by Narendranath so that a user can specifically select to output only text or only graphics. The motivation for doing so would have been to save printer consumables, reduce image processing time, and lower the amount of required memory (column 8, lines 2-8 of Narendranath). Therefore, it would have been obvious to combine Narendranath with Bloomberg to obtain the invention as specified in claim 1.

Regarding claim 2: Bloomberg discloses that the text only function is adapted to separate text from images in the document (column 5, lines 35-38 and column 6, lines 65-68 of Bloomberg)

Art Unit: 2624

and send only the text to an image output device for printing (column 5, line 66 to column 6, line 3 of Bloomberg).

Bloomberg does not disclose expressly an input device adapted to allow the user to select a text only function of the image manipulation device; and that said text only function specifically causes the electronic reprographic device to separate text from images in the document.

Narendranath discloses an input device (figure 3(150) of Narendranath) adapted to allow the user to select a text only function of the image manipulation device (column 8, lines 15-16 of Narendranath); and that said text only function specifically causes the electronic reprographic device to separate text from images in the document (column 8, lines 15-19 of Narendranath).

Bloomberg and Narendranath are combinable because they are from the same field of endeavor, namely the control, processing and printing of digital documents. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to have the electronic reprographic device separate text from images in the document if an input device that allows a user to select text only printing is activated, as taught by Narendranath. The motivation for doing so would have been to save printer consumables, reduce image processing time, and lower the amount of required memory (column 8, lines 2-8 of Narendranath). Therefore, it would have been obvious to combine Narendranath with Bloomberg to obtain the invention as specified in claim 2.

Regarding claim 4: Bloomberg discloses that said image manipulation device is adapted to separate text from images in the document (figure 12A; figure 12C; and column 5, lines 17-21

Art Unit: 2624

of Bloomberg) and send only the text to an image output device for printing (column 5, lines 35-37 of Bloomberg).

Regarding claim 5: Bloomberg discloses that the unwanted images include borders, frames and pictures (figure 12A; figure 12C; and column 13, lines 25-34 of Bloomberg). Figure 12A of Bloomberg represents the original image (column 13, lines 25-28 of Bloomberg). Figure 12C represents the resulting text after the graphics have been removed (column 13, lines 31-34 of Bloomberg). As can be seen from figures 12A and 12C of Bloomberg, the picture of the graph is removed along with the border around said graph. Said border can also be considered a frame since said border defines a rectangular region around said picture. Further, since the system of Bloomberg removes all line graphics and retains only the text region (column 13, lines 31-34 of Bloomberg), all pictures, borders and graphics are removed using said system.

Regarding claim 6: Bloomberg discloses that said controller is adapted to screen out images that exceed a predetermined size from the document being reproduced (column 6, lines 16-21 of Bloomberg). Large ON regions and finely textured regions are first removed from the image (column 6, lines 16-21 of Bloomberg), leaving the smaller regions to be processed afterwards (column 6, lines 27-28 of Bloomberg). A "large" region implies a predetermined size that is exceeded, namely what is considered to be large with respect to the text characters. Said controller first screens out the image regions that exceed this predetermined size by first removing image regions that are considered large (column 6, lines 16-21 of Bloomberg).

Art Unit: 2624

Regarding claim 7: Bloomberg discloses communicating the document to be reproduced to an electroreprographic copier, which is a form of printing system (column 6, lines 1-5 of Bloomberg). Communicating said document to said printing system requires submitting a print job in some form since, by definition, a print job is a file or set of files that has been submitted to be printed.

Bloomberg further discloses electronically separating images on the document from text of the print job (figure 12A; figure 12C; and column 5, lines 17-21 of Bloomberg); and printing only the text of the print job (column 5, lines 35-37 of Bloomberg).

Bloomberg does not disclose expressly determining if a text only or a graphics only feature of the printing system is selected; electronically separating image on the document from text of the print job, as taught by Bloomberg, if one of the text only or graphics only feature is selected; printing only the text of the print job, as taught by Bloomberg, if the text only feature is selected; and if the graphics only feature is selected, printing only graphics of the print job.

Narendranath discloses determining if a text only (figure 3(150) of Narendranath) or graphics only (figure 3(152) of Narendranath) feature of the printing system is selected (column 7, lines 64 to column 8, line 2 of Narendranath); if one of the text only or graphics only feature is selected, electronically separating image on the document from text of the print job (figure 2; column 7, lines 43-46 and column 8, lines 8-12 of Narendranath); if the text only feature is selected, printing only the text of the print job (column 8, lines 15-19 of Narendranath); and if the graphics only feature is selected,

Art Unit: 2624

printing only graphics of the print job (column 8, lines 25-27 of Narendranath).

Bloomberg and Narendranath are combinable because they are from the same field of endeavor, namely the control, processing and printing of digital documents. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to have a text only and graphics only feature of the printing system, separate said text and graphics if one of the text only and graphics only feature is selected, and then printing the appropriate output, as taught by Narendranath. The motivation for doing so would have been to save printer consumables, reduce image processing time, and lower the amount of required memory (column 8, lines 2-8 of Narendranath). Therefore, it would have been obvious to combine Narendranath with Bloomberg to obtain the invention as specified in claim 7.

Regarding claim 8: Bloomberg discloses that the step of separating images on the document from text comprises the step of using an image manipulation device (figure 1A(6(part)) of Bloomberg) in the printing system to separate the images from the text (column 5, lines 17-21 of Bloomberg). The computer processor (figure 1A(6) of Bloomberg) performs the overall image processing of the system (column 5, lines 57-62 of Bloomberg). Therefore, the image manipulation device is the portion of the computer processor, along with the associated embodied software, that performs the operations corresponding to said image manipulation device.

Regarding claim 10: Bloomberg discloses a reprographic system (figure 1 of Bloomberg) comprising a first processing unit (figure 1(6(part)) of Bloomberg) for receiving a print job (column 5, lines 5-9 and lines 57-58 of Bloomberg). The image

processing system (figure 1 of Bloomberg) is a reprographic system since said system is used to digitally reproduce digital document data (column 5, lines 5-9 and column 6, lines 1-5 of Bloomberg). A wide variety of documents are processed by said reprographic system (column 5, lines 5-9 and column 6, lines 1-5 of Bloomberg). Further, a processor (figure 1(6) of Bloomberg) is used to control the data flow and image processing (column 5, lines 57-58 of Bloomberg). Since the modified document is communicated to the printing device (figure 1(8) of Bloomberg), which is a part of the overall system (column 6, lines 1-5 of Bloomberg), some form of print job must be processed since, by definition, a print job is a file or set of files that has been submitted to be printed. The first processing unit is the portion of said processor, along with the associated embodied software, that performs the operations corresponding to said first processing unit.

Said system further comprises a second processing unit (figure 1(6(part)) of Bloomberg) coupled to the first processing unit for processing the print job (column 5, lines 56-57 and column 6, lines 1-5 of Bloomberg). The processor (figure 1(6) of Bloomberg) controls the data flow (column 5, lines 56-57 of Bloomberg), which includes sending said print data to the printing device (column 6, lines 1-5 of Bloomberg). Therefore, a portion of said processor processes said print job. The second processing unit is the portion of said processor, along with the associated embodied software, that performs the operations corresponding to said second processing unit. Said second processing unit is operatively coupled to said first processing unit since they are both part of the processor (figure 1(6) of Bloomberg) and the processing of the print job

Art Unit: 2624

must inherently occur after the receipt of said print job. A print job must be received before said print job can be processed.

Said system further comprises a text only device (figure 1(6(part)) of Bloomberg) operatively coupled to the second processing unit and adapted to format the print job into a text only format (column 5, lines 17-21 of Bloomberg). The text only device is the portion of said processor, along with the associated embodied software, that performs the operations corresponding to said text only device. Since said second processing unit processes the print job (column 5, lines 56-57 and column 6, lines 1-5 of Bloomberg) and said text only device is operatively coupled to said second processing unit since said text only device modifies said print job (column 5, lines 17-21 of Bloomberg).

Said system further comprises an image output terminal (figure 1(8) of Bloomberg) operatively coupled to the second processing unit and controlled by the second processing unit (column 5, line 66 to column 6, line 2 of Bloomberg) for printing the text only format of the print job (column 6, lines 10-15 of Bloomberg). The result of the image processing is communicated to said image output terminal (column 5, line 66 to column 6, line 2 of Bloomberg). Therefore, said image output terminal is operatively coupled to and controlled by said second processing unit.

Bloomberg does not disclose expressly an output selection device coupled to the second processing unit for selecting at least a text only output feature, a graphics only output feature, or a normal output feature; formatting the print job into a text only format, as taught by Bloomberg, if the text

Art Unit: 2624

only output feature is selected; and printing the text only format of the print job, as taught by Bloomberg, when the text only output feature is selected.

Narendranath discloses an output selection device (figure 3 of Narendranath) for selecting at least a text only output feature (figure 3(150) of Narendranath), a graphics only output feature (figure 1(152) of Narendranath), or a normal output feature (no selection) (column 7, line 64 to column 8, line 2 of Narendranath); formatting a print job into a text only format if the text only output feature is selected (column 8, lines 8-12 of Narendranath); and printing the text only format of the print job when the text only output feature is selected (column 8, lines 15-19 of Narendranath).

Bloomberg and Narendranath are combinable because they are from the same field of endeavor, namely the control, processing and printing of digital documents. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to operatively couple to the second processing unit, taught by Bloomberg, the output selection device taught by Narendranath. Further, if the text only feature of said output selection device is selected, then the print job is formatted as text only and then printed in said text only format, as taught by Narendranath. The motivation for doing so would have been to save printer consumables, reduce image processing time, and lower the amount of required memory (column 8, lines 2-8 of Narendranath). Therefore, it would have been obvious to combine Narendranath with Bloomberg to obtain the invention as specified in claim 10.

Regarding claim 11: Bloomberg discloses that said text only device is further adapted to separate images from text in

the print job (column 5, lines 35-38 and column 6, lines 65-68 of Bloomberg).

Regarding claim 12: Bloomberg discloses that the text only format includes only a text portion of the print job and excludes any images of the print job (column 5, lines 35-37 of Bloomberg).

Regarding claim 14: Bloomberg discloses that said text only device is adapted to convert the scanned image into a bitmap representation of the image (figure 12B; figure 12C; and column 13, lines 29-34 of Bloomberg). The text regions are separated from the graphics regions as blocks of the original image (figure 12B; figure 12C; and column 13, lines 29-34 of Bloomberg). The overall image, including the text regions, is comprised of binary or grayscale pixels (column 5, lines 49-50 of Bloomberg), and is thus a bitmap image.

Regarding claim 15: Bloomberg discloses that said text only device is adapted to inhibit a printing of information from a scanned document, when images within the scanned document exceed a predetermined size (column 6, lines 16-21 of Bloomberg). Large ON regions and finely textured regions are first removed from the image (column 6, lines 16-21 of Bloomberg), leaving the smaller regions to be processed afterwards (column 6, lines 27-28 of Bloomberg). A "large" region implies a predetermined size that is exceeded, namely what is considered to be large with respect to the text characters. Said text only device inhibits the printing of information from image within a scanned document that exceeds this predetermined size by removing image regions that are considered large (column 6, lines 16-21 of Bloomberg).

Further regarding claims 16 and 17: Narendranath discloses that said output selection device can either be a virtual button (touch screen) or a physical button (column 3, lines 6-9 of Narendranath) .

Further regarding claim 18: Narendranath discloses that said output selection device comprises a graphical user interface (figure 6(14) and column 3, lines 6-9 of Narendranath) comprising at least a text only selection key (figure 3(150) and column 8, lines 15-19 of Narendranath) and a graphics only selection key (figure 3(152) and column 8, lines 25-27 of Narendranath) .

Further regarding claim 19: Narendranath discloses that said output selection device further includes a graphics only feature device (figure 3(152) of Narendranath) for detecting (column 7, line 65 to column 8, line 2 of Narendranath) and printing of only graphics from the text/graphic document (column 8, lines 25-27 of Narendranath) .

Further regarding claim 20: Narendranath discloses, after submitting the print job (column 3, lines 6-16 of Narendranath) , of activating an output selection key to select a text only or graphics only feature of the printing device (column 7, line 64 to column 8, line 2 and column 8, lines 8-12 of Narendranath) . The User Interface enables the operator to make the modifications, such as selecting text only or graphics only modes (column 3, lines 6-11 of Narendranath) . The resultant output signal based on operator instructions is then sent directly to be printed (column 3, lines 11-16 of Narendranath) . Therefore, the output selection key is activated after the print job has been submitted.

Application/Control Number: 09/772,126

Art Unit: 2624

7. Claims 3 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bloomberg (US Patent 5,202,933) in view of Narendranath (US Patent 5,751,434) and Murata (US Patent 5,748,774).

Regarding claim 3: Bloomberg discloses outputting the processed data to an optical character recognition system (column 6, lines 1-4 of Bloomberg).

Bloomberg in view of Narendranath does not disclose expressly that said image manipulation device comprises an optical character recognition system.

Murata discloses an optical character recognition system for processing the image data (column 5, lines 15-20 of Murata).

Bloomberg in view of Narendranath is combinable with Murata

because they are from the same field of endeavor, namely the processing and printing of scanned image data. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to include an optical character recognition system, as taught by Murata, in the image manipulation device taught by Bloomberg in view of Narendranath. The motivation for doing so would have been to be able to process character data with the appropriate settings in order to improve image reproducibility (column 6, lines 5-11 of Murata). Therefore, it would have been obvious to combine Murata with Bloomberg in view of Narendranath to obtain the invention as specified in claim 3.

Regarding claim 9: Bloomberg discloses outputting the processed data to an optical character recognition system (column 6, lines 1-4 of Bloomberg); and separating the images from the text in a scanned document (column 5, lines 12-15 of Bloomberg).

Art Unit: 2624

Bloomberg in view of Narendranath does not disclose expressly that said step of separating images on the document from text comprises the step of using an optical character recognition device in the printing system to separate the image from the text.

Murata discloses using an optical character recognition system to process a scanned document (column 5, lines 15-20 of Murata), which therefore results in the extraction of the text from said document.

Bloomberg in view of Narendranath is combinable with Murata because they are from the same field of endeavor, namely the processing and printing of scanned image data. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to use the optical character recognition system taught by Murata to separate text data from graphics data, as taught by Bloomberg in view of Narendranath. The motivation for doing so would have been the OCR reading taught by Murata is performed based on a set of parameters (column 5, lines 15-18 of Murata) which provide excellent image reproducibility (column 6, lines 5-11 of Murata). Therefore, it would have been obvious to combine Murata with Bloomberg in view of Narendranath to obtain the invention as specified in claim 9.

8. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bloomberg (US Patent 5,202,933) in view of Narendranath (US Patent 5,751,434) and Li (US Patent 5,506,697).

Regarding claim 13: Bloomberg in view of Narendranath does not disclose expressly that said text only device is adapted to convert a scanned image in said second processing unit into an editable text format.

Li discloses converting document image data into an editable text format (column 3, lines 40-46 of Li). "Human readable data on a document" (column 3, lines 40-41 of Li) includes text (column 4, lines 43-45 of Li).

Bloomberg in view of Narendranath is combinable with Li because they are from the same field of endeavor, namely the processing and printing of scanned image data. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to convert the text that has been separated from the image, as performed by the system of Bloomberg in view of Narendranath, editable text, as taught by Li. The motivation for doing so would have been to allow a user to modify the contents of the text in a document (column 4, lines 33-36 of Li). Therefore, it would have been obvious to combine Li with Bloomberg in view of Narendranath to obtain the invention as specified in claim 13.

Conclusion

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

Application/Control Number: 09/772,126
Art Unit: 2624

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James A Thompson whose telephone number is 571-272-7441. The examiner can normally be reached on 8:30AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David K Moore can be reached on 571-272-7437. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

James A. Thompson
Examiner
Art Unit 2624

JAT
11 April 2005



THOMAS D. LEE
PRIMARY EXAMINER